

REMARKS

With entry of this amendment, claims 1-64 are pending in the application. Claims 11-46, 51-60 and 62 were withdrawn from consideration in the Office Action of May 8, 1998 based on Applicants' election of claims 1-10, 47-50, and 61 directed to recombinant respiratory syncytial virus (RSV) with multiple attenuating mutations, vectors encoding multiply attenuated RSV, and methods for producing multiply attenuated RSV, in response to the restriction requirement of December 10, 1997.

Claims 1, 63 and 64 as presented in Applicants' amendment of November 9, 1998 were subjected to a Supplemental Restriction Requirement in the Final Office Action of February 1, 1999, whereby claims 63 and 64 were withdrawn from consideration.

By this amendment, claims 1, 63 and 64 have been amended for clarity and to comply with the Supplemental Restriction Requirement as modified during an April 21, 1999 Examiner Interview (see below).

Allowed Subject Matter

Claims 47-50 were allowed in the Final Office Action of February 1, 1999.

Allowable Subject Matter

In the Final Office Action of February 1, 1999, the Examiner indicated that claims 1-10 and 61 would be allowable if amended to overcome the Supplemental Restriction requirement. Based on the Examiner Interviews conducted March 17, 1999, March 23, 1999, and April 21, 1999 (summarized below), Examiner Brumback and Primary Examiner Wortman agreed in principle that the Supplemental Restriction Requirement would be removed with respect to the subject matter of claims 1, 63 and 64 (dependent on allowed claim 47) as amended herein. The subject matter of

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claims 1-10, 61, 63 and 64, as amended herein, thus satisfies the conditions of allowability articulated by the Office.

Summary of Examiner Interviews

In the Final Office Action of February 1, 1999, the Examiner imposed a Supplemental Restriction Requirement on the basis that claims 1, 63 and 64 (reciting a Markush grouping of four alternative structural attributes of recombinant RSV of the invention) were allegedly directed to independent and distinct inventions from the originally elected claims comprising Group I set forth in the original Restriction Requirement. In particular, the Examiner noted that the alternative Markush category (iv) recites "a mutation in a 3' promoter element that enhances RSV replication." (see, Summary of March 17, 1999 Examiner Interview mailed March 19, 1999).

The Examiner also requested clarification as to whether different types of mutations disclosed in the specification other than temperature sensitive (*ts*) attenuating mutations are included within the scope of the pending claims. As clarified in the Summary of the March 23, 1999 Examiner Interview mailed March 26, the invention in fact embraces RSV having multiple attenuating mutations which include, but are not limited to, *ts* attenuating mutations. For example, originally presented claim 1 recites a recombinant RSV having "at least two attenuating mutations." This claim that was elected as part of Group 1 only specifies that at least one of the attenuating mutations is a *ts* mutation.

However, as is clearly described throughout the specification, one or more of the additional mutations may be a *ts* or non-*ts* attenuating mutation (e.g., a mutation from cold passaged (*cp*), small plaque (*sp*), or host-range restricted (*hr*), attenuated RSV). A combination of multiple *ts* mutations or, alternatively, *ts* and non-*ts* attenuating mutations, may be

assembled in a recombinant RSV from a "menu" of mutations, for example mutations adopted from one or more different biologically derived, cold passaged and temperature sensitive, ("cpts") RSV mutants.

During the April 21, 1999 interview with Examiner Brumback and Primary Examiner Wortman, Applicants' representative, Jeffrey King, explained this generic scope of the invention. Examiner Brumback and Primary Examiner Wortman concurred that the originally presented claim 1 (Group 1) embraces multiply attenuated RSV recombinants having *ts* and, optionally, non-*ts* attenuating mutations. On this basis, it was agreed that the Markush group members designated "(i)-(iii)" in claims 1, 63 and 46 recite specific aspects within the originally claimed generic invention, and that the Supplemental Restriction Requirement would be modified accordingly to allow coordinate prosecution of this subject matter in a single application. With respect to the Markush group member designated "(iv)", directed to RSV with a 3' promoter mutation, restriction of this subject matter as a distinct invention was maintained.

Accordingly, the amendment to claims 1, 63 and 64 herein comports with the modified restriction requirement by deleting the Markush member designated "(iv)," which subject matter is withdrawn without prejudice for future prosecution in a related application.

By virtue of the modified restriction requirement and the Office's concurrence as to the generic scope of multiply attenuated RSV recombinants within the invention of originally elected Group I, this amendment does not raise new issues after final. Therefore, entry of this amendment is respectfully requested.

In view of the above amendments to the claims and accompanying remarks, Applicants believe that each rejection has been addressed and overcome and that the application is now in

Brian R. Murphy et al.  
Serial No. 08/892,403  
Page 6

condition for allowance. Notice to that effect is requested. If for any reason, however, the Examiner feels that a telephone conference would expedite prosecution of the subject application, the Examiner is invited to telephone the undersigned at 206/467-9600.

Respectfully submitted,

Dated: April 27, 1999

By: 

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